REMARKS/ARGUMENTS

Claims 1, 3-8 and 14-27 are pending. By this Amendment, claims 1 and 7 are amended and new claim 27 is presented. Support for the amendments to claims 1 and 7 can be found, for example, in original claims 1 and 7. The amendments are made solely to improve the clarity of the claims. Support for new claim 27 can be found, for example, in the present specification at page 5, lines 23 to 27. No new matter is added. In view of the foregoing amendments and following remarks, reconsideration and allowance are respectfully requested.

Rejection Under 35 U.S.C. §103

The Office Action rejects claims 1, 3-8 and 14-26 under 35 U.S.C. §103(a) over DE-C 477437 ("DE 437") in view of U.S. Patent No. 4,693,877 to Oehsen et al. ("Oehsen"). Applicants respectfully traverse the rejection.

Claim 1 recites "[a] process for preparing hydrocyanic acid (HCN) comprising: catalytically dehydrating gaseous formamide in the presence of atmospheric oxygen in a reactor comprising an inner reactor surface comprising a steel comprising iron and chromium and nickel; wherein: the process is carried out at a pressure of from 200 to 250 mbar; and the reactor contains no additional internals, catalysts, or combinations thereof" (emphasis added). DE 437 and Oehsen do not disclose or suggest such a process.

The Office Action asserts that DE 437 discloses a process in which formamide vapor is passed through tubes or lines having catalytically active inner surfaces. *See* Office Action, page 2. The Office Action concedes that DE 437 does not disclose the particular steel inner reactor surface of claim 1 or that dehydration occurs in the presence of atmospheric oxygen, but asserts that it would have been obvious to modify the process of DE 437 in view of Oehsen's alleged disclosure of carrying out dehydration in the presence of oxygen using an

iron-nickel-chromium steel catalyst. *See* Office Action, page 2. Notwithstanding these assertions, DE 437 and Oehsen would not have rendered obvious claim 1.

As indicated above, the process of claim 1 is carried out under a pressure of from 200 to 250 mbar. DE 437 discloses processes for catalytic preparation of HCN from formamide, which are performed under various conditions. In particular, DE 437 discloses passing highly diluted formamide vapor at high velocity through tubes or over catalysts formed from materials such as iron, V2A steel, nickel and aluminum. *See, e.g.,* DE 437, page 1, lines 37 to 42; page 2, lines 16 to 24. DE 437 indicates that formamide vapor can be provided either under reduced pressure or in a mixture with ammonia and/or an inert gas. *See, e.g.,* DE 437, page 2, lines 1 to 15. In particular, DE 437 provides that formamide vapor is reacted under pressures of 10 mmHg (13.33 mbar), 10 to 20 mmHg (13.33 to 26.66 mbar), and 20 to 30 mmHg (26.66 to 40.00 mbar). *See, e.g.,* DE 437, Examples 1 and 3-6. Alternatively, formamide vapor is reacted under atmospheric pressure (but in the presence of a great excess of ammonia). *See, e.g.,* DE 437, Example 2. However, in no instance in DE 437 is formamide vapor reacted at a pressure of from 200 to 250 mbar under the conditions set forth in claim 1 – much less in the presence of atmospheric oxygen.

While the Office Action relies on Oehsen for its alleged disclosure of reacting formamide vapor in the presence of oxygen, Oehsen does not remedy the deficiencies of DE 437. Oehsen, like DE 437, fails to disclose or suggest reacting formamide vapor at a pressure of from 200 to 250 mbar. In every disclosed embodiment of Oehsen, formamide vapor is reacted in a reactor including internals at a pressure of 130 mbar. *See* Oehsen, column 3, line 48 to column 4, line 59. As neither DE 437 nor Oehsen discloses or suggests reacting formamide vapor at a pressure of from 200 to 250 mbar under the conditions set forth in claim 1, the combination of references fails to disclose or suggest each and every feature of claim 1.

The present inventors discovered that it is possible to form HCN from formamide at relatively high pressures with relatively high yields by reacting formamide in the presence of oxygen in a reactor that is free from internals. *See, e.g.,* present specification, page 3, lines 27 to 30. As a result of this discovery, it is possible to carry out the method of claim 1 and maintain high yields without using expensive and complicated equipment for maintaining low pressure. *See, e.g.,* present specification, page 5, lines 1 to 5. There is simply no suggestion of assembling the combination of features in claim 1 in the cited references. The Office Action relies on Oehsen for its alleged disclosure of employing oxygen when reacting formamide vapor. However, in every embodiment of Oehsen, a reactor having internals is used – the features of the internals are discussed in some detail. *See, e.g.,* Oehsen, column 2, lines 32 to 43. As is well-settled, a *prima facie* case of obviousness based on a proposed modification to a reference will only stand if one of ordinary skill would have had a reasonable expectation of success upon making the modification. *See, e.g.,* MPEP §2143.02 (citing *In re Merck & Co., Inc.*, 800 F.2d 1091 (Fed. Cir. 1986)). One of ordinary skill in the art would have had no reason to expect that the supply of oxygen as provided by Oehsen would be effective in the apparatus of DE 437, which does not include internals.

As explained, claim 1 would not have been rendered obvious by DE 437 and Oehsen. Claims 3-8 and 14-26 depend from claim 1 and, thus, also would not have been rendered obvious by DE 437 and Oehsen. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Conclusion

For the foregoing reasons, Applicants submit that claims 1, 3-8 and 14-27 are in condition for allowance. Prompt reconsideration and allowance are respectfully requested.

Respectfully submitted,

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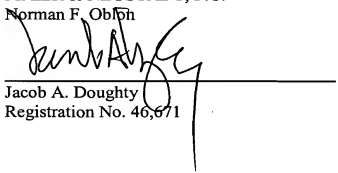

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